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EXAMINER

TRAN, TRANG U

ART UNIT

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2622

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/499,369

Applicant(s)

WAKABAYASHI, TOSHITSUGU

Examiner

Trang U. Tran

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-16 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed February 28, 2007 have been fully considered but they are not persuasive.

In re pages 2-4, applicant argues that claims 1 and 12 are not anticipated by Troiano because Troiano fails to teach a control circuit receiving said image signal from said image signal processing circuit and varying a frequency characteristic of the image signal in the periodic manner as recited in claim 1 and periodically varying a frequency characteristic of the image signal by acting directly on the image signal as recited in claim 12.

In response, the examiner respectfully disagrees. Troiano discloses in col. 3, lines 43-57 that "the filtered luminance signal produced by filter 116 is applied via a sample gate 118 and an amplifier/limiter circuit 120 to the input of a pulse forming and averaging detector 122. Gate 118 is controlled by a sample pulse forming network 124 having an input connected to terminal 112 for receiving horizontal synchronizing pulses. The function of network 124 is to enable gate 118 solely during the horizontal blanking interval of the luminance signal whereby gate 118 supplies a sampled... the horizontal synchronizing pulse supplied to terminal 112". From the above passage, it is clear that the peaking control signal generator 100 is performing in periodic manner (horizontal period) as required by claims 1 and 12.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipate by Troiano (US Patent No. 4,376,952).

In considering claim 1, Troiano discloses all the claimed subject matter, note 1) the claimed an image signal processing circuit receiving an image signal and processing the image signal for display as an image is met by the video signal processing circuit 10 (Fig. 1, col. 2, lines 20-38), 2) the claimed an image display unit receiving the image signal processed by the image signal processing circuit, and displaying the processed image signal as an image on a screen is met by the kinescope of the television receiver (Fig. 1, col. 3, lines 3-21), and 3) the claimed a control circuit receiving said image signal from said image signal processing circuit and varying a characteristic of the image signal in a periodic manner is met by the circuit 20 which varies the peaking of the luminance signal supplied to its other input in accordance with the level of signal SC from the peaking control signal generator 100 to supply a variably peaked output luminance signal to luminance amplifier 22 via a delay element 24, it is noted that peaking control signal generator 100 receives the horizontal synchronizing signal (periodically signal) and generates the peaking control signal SC (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 2, the claimed wherein the image is divided into spatial lines and temporal frames, and the control circuit alter said frequency characteristic once per spatial line in each temporal frame is met by the circuit 20 which varies the peaking of the luminance signal supplied to its other input in accordance with the level of signal SC from the peaking control signal generator 100 to supply a variably peaked output luminance signal to luminance amplifier 22 via a delay element 24, it is noted that peaking control signal generator 100 receives the horizontal synchronizing signal (periodically signal) and generates the peaking control signal SC (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 3, the claimed wherein the control circuit also alters said frequency characteristic once per said temporal frame in each said spatial line is met by the varying peaking of the luminance signal according to the horizontal synchronizing signal (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 4, the claimed wherein the control circuit comprises a timing circuit receiving a first synchronizing signal indicating said spatial lines and a second synchronizing indicating said temporal frames, and generating a timing signal by dividing a frequency of the first synchronizing signal, toggling the timing signal once per said spatial line and reversing a phase of the timing signal once per said temporal frame, said frequency characteristic being controlled according to the timing signal is met by the varying peaking of the luminance signal according to the horizontal synchronizing signal (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 12, Troiano discloses all the claimed subject matter, note 1) the claimed periodically varying a frequency characteristic of the image signal by acting directly on said image signal is met by the circuit 20 which varies the peaking of the luminance signal supplied to its other input in accordance with the level of signal SC from the peaking control signal generator 100 to supply a variably peaked output luminance signal to luminance amplifier 22 via a delay element 24, it is noted that peaking control signal generator 100 receives the horizontal synchronizing signal (periodically signal) and generates the peaking control signal SC (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 13, the claimed wherein the image is divided into spatial lines and temporal frames, and said step of periodically varying alter said frequency characteristic once per spatial line in each temporal frame is met by the circuit 20 which varies the peaking of the luminance signal supplied to its other input in accordance with the level of signal SC from the peaking control signal generator 100 to supply a variably peaked output luminance signal to luminance amplifier 22 via a delay element 24, it is noted that peaking control signal generator 100 receives the horizontal synchronizing signal (periodically signal) and generates the peaking control signal SC (Fig. 1, col. 2, lines 20 to col. 3, line 42).

In considering claim 14, the claimed wherein said step of periodically varying also alters said frequency characteristic once per said temporal frame in each said spatial line is met by the varying peaking of the luminance signal according to the horizontal synchronizing signal (Fig. 1, col. 2, lines 20 to col. 3, line 42).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troiano (US Patent No. 4,376,952) in view of Nishino Kenji (JP Patent No. 06-12195).

In considering claim 5, Troiano discloses all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the control circuit has a variable inductance element, the image signal passes through said variable inductance element, the control circuit varies the inductance value of said variable inductance element in a periodic manner, thereby varying said frequency characteristic of said image signal in a periodic manner.

Nishino Kenji teaches that the vertical synchronizing signal VS from an outside or a synchronizing separator circuit 1 is supplied to a set/reset circuit 9 constituting a moiré cancel circuit 8, the output of the circuit 9 and a horizontal synchronizing signal HS from the outside or the circuit 1 are supplied to an alternating voltage generating circuit 10, then, the circuit 10 generates an alternating voltage, and a horizontal and vertical alternating magnetic field is generated at coils L1 and L2, then, three horizontal in-line arranged original color electronic beams are horizontal vibrated a little, and the display

position of a color video signal supplied to a color cathode ray tube is horizontal shifted a little by each line (see the abstract and page 2, [0020]-[0023]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the alternating voltage generating circuit as taught by Nishino Kenji into Troiano's system in order to reduce the moiré generated with the color cathode-ray tube which used the shadow mask and the aperture grille.

In considering claim 6, the claimed wherein the variable inductance element comprises a coil having a primary winding and a secondary winding, the image signal passing through the primary winding, the control circuit alternately opening and closing the secondary winding is met by A coil L1 and L2 (Fig. 5, page 2, [0020]-[0023] of Nishino Kenji).

Claim 15 is rejected for the same reason as discussed in claim 5 above.

***Allowable Subject Matter***

6. Claims 7-10, 16 and 18 are allowable.

Claims 7-9 and 16 identify the uniquely distinct features "wherein said waveform characteristic is an amplitude characteristic, and the control circuit comprises: a first amplifier circuit amplifying the image signal with a first gain characteristic; a second amplifier circuit amplifying the image signal with a second gain characteristic differing from the first gain characteristic; and a timing circuit selecting the first amplifier circuit and the second amplifier circuit alternately". The closest prior arts, Murayama et al. (US Patent No. 6,346,936) and Nishino Kenji (JP Patent No. 06-12195), either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.



Claims 10 and 18 identify the uniquely distinct features "further comprising a control unit that determines a resolution of the image signal and activates the control circuit, when said resolution is higher than a predetermined value and does not activate the control circuit when said resolution is lower than the predetermined value". The closest prior arts, Murayama et al. (US Patent No. 6,346,936) and Nishino Kenji (JP Patent No. 06-12195), either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 14, 2007



Trang U. Tran  
Primary Examiner  
Art Unit 2622